



MARYLAND DEPARTMENT OF THE ENVIRONMENT

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Alternative/Innovative Technology List of Approved Practices (August 2015)

Urban runoff has a great impact on the quality of Maryland's waters. Stormwater management practices help control pollution from urban runoff through various techniques that intercept, filter, and treat runoff from developed areas. The Maryland Department of the Environment (MDE) recognizes that new and innovative technologies for stormwater management are being developed, including many proprietary designs. Currently, the different practices that may be used to meet new development stormwater management requirements in Maryland are classified either as environmental site design (ESD) practices or as structural measures. MDE also has a separate process for the approval of innovative technologies that are used for retrofitting previously developed areas. A more detailed discussion of how ESD practices, structural measures, and retrofitting practices are evaluated may be found in MDE's "Environmental Site Design (ESD) and Innovative Technology", "Maryland's Stormwater Program Alternative/Innovative Technologies", and "Certification of Innovative Stormwater Management Technologies for Retrofit Applications." Please note that the use of any innovative practice or technology is subject to local jurisdictional approval.

MDE requires a formal request to be submitted to initiate the review process for alternative technologies prior to their use in Maryland. MDE's Alternative/Innovative Technology Review Checklist outlines the procedures for and the specific information that must be submitted to initiate this review. The following is a list of those practices that have been reviewed by MDE and their corresponding approval type:

Practice Name	Practice Type	Manufacturer	Approval Type	Approval Date
FocalPoint Bioretention Systems	Bioretention	ACF Environmental	MS4 Retrofit	6 /17/2015
AWD SITEDRAIN Strip 9624	Underdrain Alternative	American Wick Drain	Structural Component	4 /6 /2015
MP Eco-Grid	Reinforced Turf System	USA EcoSystems	Alternative Surface	1 /22/2015
Rotondo Bio-Filter	Bioretention System	Rotondo Env. Solutions, LLC	MS4 Retrofit	1 /9 /2015
Hydrotech Green Roofing System	Green Roof System	American Hydrotech, LLC	Alternative Surface	1 /9 /2015
Stormcrete	Permeable Pavement	Porous Technologies, LLC	Alternative Surface	12/9 /2014
Green Roof Outfitters Modular Roof System	Modular Green Roof	Green Roof Outfitters, LLC	Alternative Surface	11/20/2014
Eco-Roof	Green Roof System	Eco-Roofs, LLC	Alternative Surface	4 /18/2014
StormTank StormShield	Vault/Filter System	Brentwood Industries, Inc.	Pretreatment	3 /5 /2014
AquaLok GLU	Rainwater Harvesting	FGP Enterprises, LLC	ESD-All	1 /7 /2014
Rotondo Bio-Pod	Permeable Pavement/Vault System	Rotondo Env. Solutions, LLC	Pretreatment	1 /7 /2014



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Clay Brick Pavers	Permeable Pavement	The Brick Industry	Alternative Surface	8 /12/2013
CrystalClean Separator	Hydrodynamic Device	CrystalStream Technologies	Pretreatment	5 /30/2013
Aqua Bric/Bio-Pave	Interlocking Paving System	Filtrerra Bioretention Systems	Alternative Surface, ESD-All, Structural WQv	3 /19/2013
EZ Roll Grass and Gravel Pavers	Reinforced Turf	NDS, Inc.	Alternative Surface	3 /12/2013
COREgravel	Reinforced Turf	Core Systems	Alternative Surface	3 /12/2013
SAFL Baffle	OGS/Filter System	Upstream Technologies	Pretreatment	3 /12/2013
EcoCline Living Roof System	Green Roof	Furbish Company	Alternative Surface	2 /25/2013
Filtrerra Bioretention System	Bioretention	Filtrerra Bioretention Systems	ESD WQv Only, Structural WQv	2 /22/2013
Grasscrete	Reinforced Turf	Storm-Services, LLC	Alternative Surface	12/3 /2012
Nicolock Pavers	Permeable Paver	Nicolock Paving Stones	Alternative Surface	8 /3 /2012
AquaLok Panels	Green Roof/ Rainwater Harvesting	FGP Enterprises, LLC	Alternative Surface, ESD-All	6 /20/2012
PaveDrain	Permeable Pavement	Ernest Maier, Inc.	Alternative Surface	3 /29/2012
Modular Wetland System	Modular Wetland	Shri Agencies, LLC	Pretreatment	3 /15/2012
Jellyfish Filter	Cartridge/Membrane Filter	Imbrium Systems Corporation	Structural WQv	3 /12/2012
Floating Treatment Wetlands	Modular Wetland	BlueWing Env. Solutions	Pretreatment	3 /8 /2012
StormBasin	OGS/Filter	Fabco Industries, Inc.	Pretreatment	2 /13/2012
StormSafe	Vault/Filter System	Fabco Industries, Inc.	Pretreatment	2 /13/2012
StormSack	Catch Basin Insert	Fabco Industries, Inc.	Pretreatment	2 /13/2012
PhosphoSorb Media	Filter Media	ConTech Construction	Structural WQv	11/18/2011
BaySeparator	Hydrodynamic Device	BaySaver Technologies, Inc.	Pretreatment	8 /10/2011
FlexStorm	Catch Basin Insert	Nyloplast	Pretreatment	5 /17/2011
V2B1 Hydrodynamic Separator	Hydrodynamic Device	Environment 21	Pretreatment	10/6 /2010
Flo-Gard	Inlet Filter	Kristar Enterprises, Inc.	Pretreatment	8 /19/2010
Sorbitive Media	Filtering Media	Imbrium Systems Corporation	Structural WQv	10/21/2009
Sorbitive Filter	Filter	Imbrium Systems Corporation	Structural WQv	9 /11/2009
UrbanGreen	Filter	Contech Construction Products, Inc.	Structural WQv	6 /3 /2009



Practice Name	Practice Type	Manufacturer	Approval Type	Approval Date
StormTank	Storage Tank	Brentwood Industries	Pretreatment	11/6 /2008
ADS/Hancor WQU	Hydrodynamic Device	ADS Hancor	Pretreatment	3 /25/2008
StormTech Isolator	Storage Tank	StormTech, LLC	Structural Component	11/7 /2007
No Fault/Smarte Surface	Permeable Surfaces	Human & Rohde	Alternative Surface	6 /1 /2007
Up-Flo Filter	Catch Basin Insert	Hydro International	Pretreatment	2 /6 /2007
Storm-Pure	Catch Basin Insert	Nyloplast	Pretreatment	11/20/2006
BayFilter	Cartridge Filter	BaySaver Technologies, Inc.	Structural WQv	8 /8 /2006
Aqua Filter	Cartridge Filter	AquaShield, Inc.	Structural WQv	5 /5 /2006
Aqua Swirl	Hydrodynamic Device	AquaShield, Inc.	Pretreatment	5 /5 /2006
Stormfilter	Cartridge Filter	Stormwater Management, Inc.	Structural WQv	4 /11/2005
Terre Kleen	Hydrodynamic Device	Terre Hill Concrete Products	Pretreatment	3 /28/2005
Ultra-Urban Filter	Catch Basin Insert	Abtech Industries	Pretreatment	2 /15/2005
Vortfilter	Cartridge Filter	Vortechnics, Inc.	Pretreatment	1 /6 /2005
CDS Media Filtration System	Cartridge Filter	CDS Technologies, Inc	Structural WQv	12/30/2004
FirstDefense	Hydrodynamic Device	Hydro International	Pretreatment	11/30/2004
Vortechns & Vort Sentry	Hydrodynamic Device	Vortechnics, Inc.	Pretreatment	6 /1 /2004
Downstream Defender	Hydrodynamic Device	Hydro International	Pretreatment	5 /4 /2004
Stormceptor	Hydrodynamic Device	Imbrium Systems Corporation	Pretreatment	9 /17/2003
CDS Oil / Grit Separator	Hydrodynamic Device	CDS Technologies, Inc	Pretreatment	8 /15/2003

Please contact each vendor/manufacturer for approval letters and more specific product information for each of the above-listed practices. Any formal request to MDE concerning an alternative/innovative technology should be submitted to MDE's Sediment, Stormwater, and Dam Safety Program, 1800 Washington Boulevard, Baltimore, MD 21230. If there are any questions concerning these practices, please contact the Maryland Department of the Environment, Water Management Administration at 410-537-3543 or at www.mde.maryland.gov.

